

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Connect America Fund)	WC Docket No. 10-90
)	
A National Broadband Plan for Our Future)	GN Docket No. 09-51
)	
High-Cost Universal Service Support)	WC Docket No. 05-337
)	

To: The Commission

**COMMENTS OF THE SOUTH DAKOTA
TELECOMMUNICATIONS ASSOCIATION**

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Executive Summary

Though the South Dakota RLECS agree that the current Universal Service support mechanisms could benefit from some level of reform, particularly to eliminate the identical support rule in connection with the High-Cost fund and to minimize fraud and waste in the Low Income fund, the sweeping changes proposed in the Commission's Notices of Inquiry and Proposed Rulemaking will not only fall short of the National Broadband Plan's goals, but cause substantial harm to existing rural networks, stranding investment and eliminating the significant gains made by RLECs all across rural America.

Were it not for the existing federal Universal Service support mechanisms, the telecommunications networks that have been deployed by the South Dakota RLECS, which cover approximately 80% of South Dakota's geographic area, simply would not be. The rural carriers have used the support dollars as they are intended – to actually invest in and maintain the facilities and equipment that are necessary to deliver both basic and advanced telecommunications services. Further, critical functions such as Carrier of Last Resort obligations and access to rural financing rely heavily on continued USF support. Reductions in USF support will hamper the South Dakota RLECs ability to continue meeting these obligations, and put in jeopardy their ability to repay loans to prominent rural lenders like the Rural Telephone Finance Cooperative.

Beyond the clear negative impact the proposed reforms will have on existing broadband infrastructure, SDTA respectfully submits that the cost model process itself is inappropriate for determining USF support because it does not address the unique concerns presented in rural carrier service areas. Under the "company agnostic" approach advocated in the Notice, such realities go completely unaddressed.

The Broadband Assessment Model itself is critically flawed and simply incapable of accurately and beneficially serving as a support distribution mechanism. In the first place, the Notice assumes that current universal service and access charge mechanisms are inefficient. Yet, no such evidence is presented and, quite to the contrary, the South Dakota RLECS are proof of the exact opposite. The Notice asks for comment on various reforms to universal service, ostensibly to expand the provision of broadband service, but no information is provided on how any of the proposed reforms will achieve the goals enumerated in Section 254 of the Act. Likewise, the Notice ignores the well-developed record that a model or reverse auction would not effectively determine the appropriate amount of support and, therefore, support based on a model or a reverse auction mechanism would adversely impact consumers in rural ILEC service areas.

In addition to the lack of support for its assumptions, the Broadband Assessment Model would fail to provide sufficient support and necessarily result in downgraded service. First, the model cannot meet the requirement in Section 254(b)(3) requiring reasonably comparable service in rural and urban areas because the proposed mechanisms will produce non-comparable speeds – only 4 Mbps downstream and 1 Mbps upstream. Next, it is difficult to determine whether the model can calculate support levels to minimize the perceived, but not identified, problems of “waste, fraud, and abuse”, without more specific detail. Further, by focusing entirely on the funding of neutral geographic units, rather than the providers and the service areas in which they actually operate, the Broadband Assessment Model will necessarily create greater inefficiencies than those alleged with respect to current USF mechanisms by again failing to take into account the realities of rural telecommunications deployment.

The Broadband Assessment Model flatly fails to produce accurate reflections of the cost of deploying, maintaining, and operating rural, high-cost broadband networks. It overestimates 4G wireless availability by assuming availability in South Dakota's counties if a carrier has merely announced future plans to deliver 4G; it fails to calculate or project the amount of funding from either current support mechanisms or the CAF that will be required to maintain existing broadband-capable networks that meet or exceed the 4/1 Mbps threshold; and, in its present form, fails to address the un-depreciated, unrecovered portions of existing broadband infrastructure and the ongoing costs to operate and maintain broadband-capable networks provided by rural carriers in rural, high-cost areas.

Likewise, the model assumes that its errors balance out at the larger geographic level. But, the fact of the matter is that small, rural carriers do not serve large areas. In fact, very often they only serve parts of a county, or small areas within a few counties. Based on this, the results of the Commission's model are likely to produce false results at the level of small areas that rural carriers serve.

With respect to the Notice of Proposed Rulemaking, SDTA respectfully submits that the Notice's identification of the problems facing the high-cost fund is overbroad, doctrinaire and not factually supported. The problems and causes of growth in the fund are well known and subject to specific solutions; yet the Notice does not address these specific problems, instead taking a 'one size fits all' approach – an approach which has been previously rejected by the Commission. Instead, the Notice's proposals should be tailored more narrowly. High-cost reform should immediately focus upon eliminating the identical support rule, as recommended by the Joint Board and the Commission should focus on fraud, waste and abuse in the low income fund.

The South Dakota RLECs are committed to the betterment of the rural communities within their service areas and the concept of providing true local service to rural area consumers. Rural carriers are different than non-rural carriers and, rather than dismissing such differences, the differences should be addressed to accomplish desired ends. Adopting and implementing proposals that are focused around reducing the amount of USF support to rural carriers or which fail to adequately address the revenue losses associated with interstate and intrastate switched access reform will neither foster the goals of increased broadband infrastructure deployment in the rural carriers service areas, nor facilitate the NBP's many other objectives, including the objectives which look to improve broadband adoption and use and stimulate economic growth in rural communities.

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**COMMENTS OF THE SOUTH DAKOTA
TELECOMMUNICATIONS ASSOCIATION**

I. Introduction

The South Dakota Telecommunications Association¹ (“SDTA”) vehemently opposes the radical cuts in universal service funding, and the related imposition of mandatory price cap regulation, as contained in the Commission’s recent Notice of Inquiry and Notice of Proposed Rulemaking (referred to as the “Notice” or “NPRM”).² While reform is assuredly overdue for both the high cost and interstate access charge mechanisms, the Notice and NPRM proposes

¹ The South Dakota Telecommunications Association (SDTA) membership includes all of South Dakota’s rural telephone companies. A list of the current members of the SDTA is attached as Appendix A. The study areas or service areas operated in by the member companies, in which the companies provide both basic telephone services and broadband services, encompasses approximately 80 percent of the State’s geographic area. Currently, the companies serve a total of approximately 144,000 access lines. The membership includes 12 companies that are rural telephone cooperatives, 5 companies that are owned by and affiliated with these cooperatives, 3 municipally owned telephone companies, 1 tribally owned telecommunications company, and 4 privately held rural telephone companies which are either locally based or which have local office facilities in the State.

² *In the Matter of Connect America Fund, A National Broadband Plan for Our Future, High-Cost Universal Service Support*, Notice of Inquiry and Notice of Proposed Rulemaking, FCC 10-58, Released April 21, 2010.

radical changes that will not only stymie advances in the universal deployment of rural broadband facilities and services, but will likely roll back considerable progress made to date.

The comments show that SDTA's members – 25 rural telephone companies in all – provide high quality telecommunications service, including broadband services, in extremely challenging circumstances. South Dakota is a state characterized by a very sparse population, with few large cities. SDTA's members provide service to approximately 80% of the state in geographic terms, yet collectively serve approximately 144,000 access lines.

Notwithstanding such challenging physical and economic conditions, and although more remains to be done, South Dakota's rural incumbent local exchange carriers ("SD RLECs" or "South Dakota RLECs") have deployed extensive facilities throughout their service areas. These comments detail the type and penetration of such facilities and services.

Importantly, the existing high cost funding mechanisms, and the interstate access charge mechanisms, are largely responsible for making this possible. The revenues from these mechanisms have been a key ingredient for securing necessary capital financing.

The Notice's and the NPRM's proposals threaten to largely undo this progress. These comments point out that a model is no substitute for real universal service-based costs. Moreover, the specific model proposed contains a number of flawed assumptions and is divorced from some of the real factors that drive the provision of universal service in rural areas.

Likewise, mandatory price caps have already proven a failure in producing modern telecommunication deployment. The Commission's own data show that it is the price cap companies, and not rural, rate of return carriers, who have failed to meet broadband obligations in high cost in rural areas.

SDTA urges the Commission to take a more measured approach. Waste, fraud and abuse is likeliest to occur in the universal service fund sectors with the most explosive growth, i.e., the competitive ETC sector (and the identical support rule) and the low income fund. The Commission should address these problems immediately.

The Commission similarly should take a more measured approach to interstate access reform. Traffic “arbitrage” is rampant, both in misreported/unreported minutes, and VOIP’s free use of the switched network. Rather than relegate the current mechanism to the junk pile, the Commission is urged to fix these specific problems.

In the *Fifth Report*,³ the most recent Section 706 report available, the Commission reported that “[h]igh-speed deployments in rural communities have continued to increase since the Commission’s *Fourth Report*.”⁴ Further, the Commission recognized that as the demand for broadband increases, “telecommunications companies expect to make \$50 billion in capital expenditures in 2008 and 2009.”⁵ In South Dakota alone, the rural telephone company members of SDTA have invested over \$133,196,000 in capital expenditures in 2008 and 2009 and have current plans to invest over \$91,966,000 in years 2010 and 2011.⁶ Overall, the Commission found in its *Fifth Report* that the “deployment of advanced telecommunications capability to all Americans is reasonable and timely,” “the data reflects the industry’s extensive investment in broadband deployment, including at higher speeds,” and that “providers are continuing to make

³ See, Federal Communications Commission, “*In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*,” Fifth Report GN Docket No. 07-45, FCC 08-88, (rel. June 12, 2008). (“*Fifth Report*”)

⁴ *Id.* at ¶36.

⁵ *Id.* at ¶74.

⁶ The capital expenditure amounts referenced were calculated from the 2009 and 2010 eligible telecommunications carrier (ETC) filings made by SDTA member companies with the South Dakota Public Utilities Commission.

significant investments in broadband facilities going forward.”⁷ In the Section 706 reports, the Commission has concluded that the current system has been successful in the deployment of advanced communications, specifically in areas served by rural telecommunications carriers.

Thus, it seems counterintuitive that the Commission would now give serious consideration to moving all rural carriers from rate-of-return regulation, which has encouraged investment in broadband capable infrastructure, to incentive regulation, capping high-cost support at 2010 levels, freezing interstate common line support (“ICLS”), and eliminating interstate access support, all of which will have the effect of hindering broadband. All of these proposals, rather than preserving and advancing the state of broadband networks and service in rural carrier service areas would have the opposite effect, threatening the sustainability of current networks and services and hindering ongoing efforts to upgrade broadband services and meet rural consumer needs.

II. Existing High-Cost Support Mechanisms Have Resulted in Substantial Broadband Infrastructure Investment in Rural Areas

A. SDTA Rural Carriers Have Deployed Extensive Facilities through Proper Use of USF

While much remains to be done, the SDTA member company incumbent local exchange carriers have made tremendous progress deploying broadband⁸ in the rural, high-cost areas of South Dakota. As reflected in the attached Appendix B, which is a summary of the Form 477 information that has been filed by SDTA member companies, end user customers residing in the SDTA member company areas currently subscribe to a varied range of broadband speeds. The

⁷ *Id.* at ¶59.

⁸ Broadband Internet service, also referred to as broadband, is defined by the Commission in GN Docket No. 10-127, *In the Matter of Framework for Broadband Internet Service*, Notice of Inquiry, (rel. June 17, 2010) at FN 1. In the Notice, the term broadband Internet service is defined as the bundle of services that facilities-based provider sell to end users in the retail market. This bundle allows end users to connect to the Internet, and often includes other services such as email and online storage.

SD RLECs have accomplished this because, as locally based smaller carriers, they are naturally committed to the success of the rural communities where they are located and where they serve. Most of the SD RLECs which are providing broadband services throughout the State of South Dakota today were also the first companies to provide basic telephone services to these rural communities, and have existed in these areas as the only communications service provider and as a “Carrier of Last Resort” (COLR) for fifty (50) years or more.⁹

South Dakota’s RLECs have, to date, achieved their successes in deploying high speed broadband services based on long-term commitments to telecommunications network investment in their service areas. The companies have, given the daunting challenges of providing affordable telecommunications and information services in some of the highest cost areas of this country, been focused on designing and implementing efficient, long term network deployment plans. They have, wherever possible, leveraged the value of their existing network facilities as a means of lowering total deployment cost. They also understand that meeting broadband service needs in high cost areas requires incremental build-outs over time. The joint use and ownership of existing network facilities has also proven to be a powerful efficiency. Most of the SD RLECs, for example, are members and owners of SDN Communications, LLC. (SDN Communications), which provides centralized equal access, other switching services, and interexchange transport services to the SD RLECs and other carriers. As owners and participating members of SDN Communications, many of the SD RLECs have been able to achieve additional network cost efficiencies extending to the provisioning of broadband services.

⁹ For instance, the Sully Buttes Telephone Cooperative, the predecessor in interest of Venture Communications, Inc. was established in 1952. Its service area is a very rural area east of the Missouri River and covers approximately 8,000 square miles, serving approximately 13,000 access lines. It is not uncommon in South Dakota for rural incumbent LECs to have been in business for comparable periods of time.

The SD RLECs have used a variety of broadband delivery technologies. Table 1 (below) displays the current percentages of subscribers in relation to the major types of broadband platforms that are being used by the SD RLECs.¹⁰ More information offering a basic description of each of these technologies is provided in the attached Appendix C.

Broadband Platform	Percentage
Asymmetric xDSL	68.00%
Symmetric xDSL	4.23%
Terrestrial Fixed	4.01%
Other Wireline	0.02%
Cable	4.60%
Optical (FTTH)	19.14%

Table 1 - Subscribers Served by Broadband Platforms

The telecommunications networks that have been deployed by the SD RLECs within their service areas (covering approximately 80% of South Dakota’s geographic area) would not exist as they do today, without the assistance that has been provided through the federal universal service support mechanisms (including the federal high cost fund and the support provided through interstate access charges). Importantly, the rural carriers have used the support dollars as they are primarily intended – to actually invest in the facilities and equipment that are necessary to deliver both basic and advanced telecommunications services. In contrast to the many larger carriers receiving universal service support, the SD RLECs have effectively used much of their universal service funding for targeted broadband infrastructure development. This difference in

¹⁰ Table 1 is based on information reported on SDTA member company FCC “Form 477” filings. This information is as of December, 2009.

approach, SDTA submits, stems largely from the fact that most rural carriers are locally owned or based within the communities they serve. As a natural result, they possess a higher level of commitment to bringing both basic and advanced telecommunications services to even the most remote customers within their service areas.¹¹

This basic difference is significant and should not be ignored in the process of evaluating universal service funding reforms. Simply re-directing existing support for the purpose of increasing the support amounts paid to larger carriers, which serve certain high cost rural areas, will not necessarily lead to investments in these rural areas or increase the availability, speed or quality of broadband services within such areas. The Commission's goals are much more likely to be achieved if real world differences between carriers are recognized and reforms made are specific enough to reasonably address varying concerns.

In sum, the South Dakota RLECs have made considerable progress in the deployment of broadband-capable networks in the most rural and remote areas. The Commission must realize that the successes have been possible because the current high-cost support systems have acknowledged the differences between rural and non-rural carriers. In order for the Commission to accomplish the goals of universal broadband availability, the Commission must continue to recognize these differences. Closing one's eyes to real world differences and, in particular, failing to take into account all of the various factors that motivate infrastructure investment decisions will frustrate further broadband deployments and the preservation of present-day gains. Congress was careful to not adopt a one-size-fits-all approach in passing the pro-competitive and universal service reforms made part of the Telecommunications Act of 1996. It is critical now

¹¹ As of year end 2009, the SDTA member companies were able to provide broadband services (of up to 4/1 Mbps) to an estimated 78% of the locations within their service areas.

that the Commission act in a similar manner in reforming the universal service support mechanisms.

B. Sufficient High Cost Support and Rate of Return Regulation are Necessary to Support Existing Rural Networks and Advance Broadband Service

In order to preserve and advance the deployment and service gains discussed above, SDTA respectfully submits that both the current high cost funding mechanism and rate of return regulation will continue to occupy a critical role, as they have in the past. The predicate for considering a cost model, and the basis for transitioning away from the current high cost funding and rate of return paradigm, proposed in the Notice, are discussed later. However, two critical functions are supported by these mechanisms today: COLR obligations and access to financing. These two subjects are inextricably intertwined with the operations of the current mechanisms, and are discussed in order.

1. Continuing Support to Off-set COLR Costs is Necessary to Improve Rural Broadband Access

South Dakota RLECs are required to serve the entirety of each of their service areas, including the highest-cost, least-populated areas that fall far short of being attractive to any competitive service providers.¹² However, in order to advance broadband service to all Americans, SDTA believes the Commission must extend COLR obligations to the provisioning of broadband services and must establish mechanisms that permit ongoing recovery of the increased costs associated with these obligations. It is only by continuing COLR obligations and imposing such obligations over larger geographic areas that the Commission will ensure ubiquitous and affordable broadband service. As technologies evolve and consumer demand increases, the need for additional bandwidth capacity will continue to increase and additional

¹² See, SDCL §§ 49-31-3, 49-31-3.1, 49-31-7.1(2), and 49-31-11.

costs will be imposed on carriers/providers. Ensuring that COLRs operating in rural, high-cost areas are provided a reasonable opportunity to recover the actual costs incurred will be essential to long-term, reliable, and affordable service in these areas.

Further, if the imposition of COLR obligations is abandoned or minimized through breaking ILEC service areas into smaller geographical units such as census blocks or census tracts, new inefficiencies will be created. Substantial existing investment of ILECs currently serving as COLRs are likely to be stranded and the costs of delivering broadband Internet access service to separate and smaller isolated areas will become excessively prohibitive. This would inevitably increase universal service funding demands. The National Broadband Plan (“NBP”)¹³ appropriately recognizes that the costs of past network investments should be addressed where the ILEC service area is subdivided.¹⁴ It should also be recognized that dividing an ILEC’s service area into multiple COLR areas is fundamentally inefficient since many of the ILEC’s capital and operational expenses will not decrease proportionately in relation to the area it no longer has an obligation to serve. Accordingly, the Commission should condition receipt of USF/CAF support on a carrier’s willingness to accept COLR obligations throughout an entire service area.

In sum, the South Dakota RLECs through operation of the current universal service support mechanisms are provided a reasonable level of assurance that they will be in a position to recover the increased costs associated with COLR obligations. In order to preserve and advance the reliability and affordability of broadband services, any newly created mechanism(s) must also continue to adequately support the costs of COLR obligations.

¹³ *Connecting America: The National Broadband Plan*, (released March 16, 2010)

¹⁴ NBP, pg 151.

2. Rural Carrier Financing Depends on Steady and Predictable High Cost and Rate-of-Return Mechanisms

Without sufficient USF receipts and rate-of-return type cost recovery mechanisms, the financing that has been made available to the SD RLECs to fund network upgrades and build-outs may disappear. Historically, the South Dakota RLECs have been able to obtain financing for their infrastructure investment projects through the Rural Utilities Service (“RUS”), or commercial lenders, such as CoBank. The financing for this infrastructure deployment and the resulting service improvements is directly attributable to predictable and sufficient revenue sources, and a willingness on the part of the rural carriers to adhere strictly to loan design modifications.¹⁵ If the SD RLECs, as a result of the reforms under consideration, suffer reductions in USF support or in other major sources of revenue, their ability to repay current loans is obviously at risk. Moreover, already developed plans for additional broadband investment and future similar plans are at risk because the lenders that have traditionally been relied on by rural carriers for capital will simply be unwilling to assume any further risk in financing additional network investment. The Rural Telephone Finance Cooperative, a well known RLEC lender, has already signaled its reluctance to continue RTFC financing under a prior proposed inter-carrier compensation framework, which similar to the proposals in the current Notice, looked to drastically cut RLEC interstate access charge recovery.¹⁶ Accordingly, the Commission should be mindful of these unavoidable financing issues which underpin nearly all rural carrier infrastructure development.

¹⁵ As of this time, the long term debt of the SDTA member companies includes approximately \$269 million in RUS or Federal Finance Bank loans and approximately \$70 million in other bank loans. At EOY 2009, SDTA members “Total Plant in Service” exceeded \$1.14, including plant attributable to both regulated and non-regulated service operations.

¹⁶ See *Letter from Lawrence Zawalick, Vice President, Rural Telephone Finance Cooperative, to Kevin Martin et al., Commissioners, FCC*, CC Dockets 01-92; 96-45 (filed October 27, 2008)

III. Real World Carrier and Provider Differences Must be Accounted For in Accomplishing Universal Broadband Service Objectives

Both the NBP and the Commission's Notice suggest that "the eligibility criteria for obtaining broadband support from CAF should be company- and technology- agnostic."¹⁷ When the Commission considers abandonment of the current high-cost support system in favor of a modeled system in which carrier size and regulatory classification (and by implication economic circumstances) are not relevant, the Commission disregards the very intent of both the Telecommunications Act of 1996 and the Regulatory Flexibility Act.¹⁸

With the enactment of the Telecommunications Act of 1996, Congress codified, in several sections of the Act, circumstances in which the Commission must recognize the differentiation of rural carriers and their service areas. For instance, Congress granted state commissions the authority to designate more than one Eligible Telecommunications Carrier ("ETC") in areas served by a non-rural carrier; however, in areas served by rural LECs, in order to designate an additional carrier as an ETC, the state commission must also find that this additional designation would be in the public interest.¹⁹ Congress also understood that a broader set of interconnection obligations could have an economically burdensome effect on smaller rural telephone companies; hence, Congress gave recognition to the lesser economies faced by rural carrier businesses and established a statutory exemption process for certain rural telephone companies related to some of the local interconnection obligations.²⁰ Congress also took note of the detriment that selective marketing practices by competitors could cause in higher cost rural

¹⁷ NBP, pg. 145; Notice at ¶10.

¹⁸ 5 U.S.C. §§ 601-612, amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

¹⁹ 47 U.S.C § 214(e)(2)

²⁰ 47 U.S.C § 251(f)(1) and (2)

areas and provided state commissions the discretion to require that competitive carriers, as a condition of entry into certain rural markets, first commit to meeting ETC service requirements.²¹

As part of the rulemaking process, the Commission is required to prepare and make available for public comment an initial regulatory flexibility analysis (“IRFA”) describing the impact of the proposed rule on small entities.²² In the IRFA, the Commission must also describe any significant alternatives to the proposed rule which accomplish the stated objectives and minimize any significant economic impact of the proposed rule on small entities.²³ The Notice is deficient, however, in its IRFA analysis.²⁴ Instead, the Notice merely lists issues which have been put out for comment, expecting organizations filing comments to conduct the economic impact analyses. Surely, the Commission must suspect that further capping the existing high-cost support funding provided to incumbent telephone companies, shifting rate-of-return carriers to incentive regulation and freezing interstate common line support on a per line basis would have a considerable detrimental economic impact on rural carriers which rely on these mechanisms for survival.²⁵

The very existence of the Regulatory Flexibility Act should advise the Commission that Congress recognized that small businesses and sweeping agency policy changes merit unique consideration. The Commission is, therefore, obligated under the law to take into account the unique concerns presented in rural carrier service areas. In part, this would seem to require, generally, that in reforming universal service support mechanisms the practices and costs

²¹ 47 U.S.C. § 253(f)

²² 5 U.S.C. § 603(a)

²³ 5 U.S.C. § 603(c)

²⁴ Notice, Appendix A, ¶54

²⁵ *Id.*

incurred by rural carriers be evaluated or compared against a reasonable rural carrier standard or standards and that the practices and costs of large carriers be measured against other large carriers. To the extent that the Commission utilizes a costing model or takes other action that is intended to take a “company agnostic” approach and disregards company size, regulatory classification and the rural versus non-rural nature of company service areas, the Commission is acting in conflict with the Telecommunications Act of 1996 and the Regulatory Flexibility Act.

IV. The “Broadband Assessment Model” (BAM) Should Not Determine Universal Service Distributions to Rural Carriers

A. Current High-Cost Mechanisms for RLECs Are Not Inefficient

The Notice makes several references to improving efficiencies,²⁶ yet, fails to precisely identify inefficiencies in the current high cost mechanisms providing support to rural incumbent local exchange carriers. The SD RLECs’ substantial network investments and deployment of broadband infrastructure throughout their rural service areas demonstrate that, for rural carriers, existing USF mechanisms cannot fairly be characterized as inefficient.

The Notice also fails to produce or point to any evidence that the envisioned reforms of the current USF and access charge mechanisms will improve or increase efficiencies in broadband deployment. For instance, the Commission’s assertion that “small carriers typically receive considerably more per-line support than larger carriers serving high-cost geographic

²⁶ In Paragraph 1 of the *Notice*, the Commission references the *Joint Statement on Broadband*, GN Docket No. 10-66, Joint Statement on Broadband, FCC 10-42 (rel. Mar. 16, 2010) stating that “[t]he nearly \$9 billion Universal Service Fund (USF) and the intercarrier compensation (ICC) system should be comprehensively reformed to increase accountability and efficiency, encourage targeted investment in broadband infrastructure, and emphasize the importance of broadband to the future of these programs.” In Paragraph 2, the Commission states that “[t]his proceeding will develop the detailed analytical foundation necessary for the Commission to distribute funds in an efficient, targeted manner that avoids waste and minimizes the burdens on American consumers” and “cut inefficient funding in the legacy high-cost support mechanisms and to shift the savings toward broadband communications.” In Paragraph 3, the Commission also claims that “some of the current high-cost programs do not provide support in an economically efficient manner” and are “based on company size or regulatory classification, rather than the cost of serving the area” or “on an incumbent carrier’s embedded costs, whether or not a competitor provides, or could provide, service at a lower cost.”

areas”²⁷ overlooks the fact that larger carriers often serve high-density, urban areas in addition to rural, high-cost geographic areas. There is no benefit to simplistically comparing the support amounts received between rural and non-rural or smaller and larger carriers without considering the size and diversity of the areas received, or in general different economies of scope and scale.

Furthermore, to make any fair comparison, the extent to which rural carriers vs. non-rural carriers have actually invested in the high cost rural areas should be taken into account. The larger carriers also serve non-rural areas. This not only lowers their average per-line costs, but also, creates a much larger revenue base that could fund reinvestments into their rural area networks if this were given the necessary priority. Decisions by the larger price cap carriers to prioritize broadband investment in the highest cost areas that they serve have not, however, been the norm. The Commission in this process must consider whether amounts distributed to date under the non-rural high cost fund have, in fact, resulted in any significant or measurable broadband investments in the rural areas that were supposed to be the priority.²⁸ Although the support amounts provided under the non-rural high cost mechanism were obviously intended for investments and operations in high-cost areas,²⁹ without an incentive or obligation to do so large

²⁷ Notice at FN 7.

²⁸ In responding to a June 15, 2010 Universal Service Fund Data Request, the FCC provided information on the top ten annual high-cost recipients for the years 2007-2009. In each of those years, AT&T was the top recipient of high-cost support, receiving a three-year support total of \$1.3 billion dollars. Verizon was the second-largest recipient of high-cost support for 2007-2009, with a total of \$1.27 billion dollars received. Qwest, ranking 10th on the list, received \$213 million dollars in high-cost support. CenturyTel, Windstream and Frontier also made the top-ten list of high-cost support recipients with respective three-year support amounts of \$931 million, \$290 million, and \$246 million. *See*, Federal Communications Commission Response to United States House of Representatives Committee on Energy and Commerce Universal Service Fund Data Request of June 15, 2010.

²⁹ *See* description of HCM (available on USAC’s website at <http://www.usac.org/hc/incumbent-carriers/step01/hc-model-support.aspx>):

“High Cost Model support keeps the cost for telephone service comparable in all areas (urban and rural) of a state. HCM support is distributed at the wire center level and is targeted to carriers serving wire centers with forward-looking costs that exceed the national benchmark.”

carriers have often directed funding to the more lucrative areas with greater market potential (and lower costs). This tendency is clearly illustrated in the NBP findings. In fact, the NBP states that “roughly half of the unserved housing units are located in the territories of the largest price-cap carriers, which include AT&T, Verizon and Qwest, while about 15% are located in the territories of mid-sized price-cap companies such as CenturyLink, Windstream and Frontier.”³⁰ The failure of larger carriers to adequately target the USF amounts that they have already received has led to large inefficiencies.³¹ These inefficiencies should not be perpetuated in the process of establishing a CAF or similar broadband funding mechanism. Moreover, these inefficiencies or basic “support targeting” issues associated with the non-rural high cost funding mechanism should not by default be imputed to the separate high cost funding mechanisms used for rural, rate-of-return regulated carriers.³² As earlier shown herein, rural carriers have invested universal service support into their networks to deploy broadband infrastructure to high-cost areas.

Similarly, the Commission takes aim at USF programs that “provide support based on an incumbent carrier’s embedded costs, whether or not a competitor provides, or could provide,

“HCM support is based on a forward-looking economic cost model. The model generates the statewide average cost per line, which is then compared to the national average cost per line to determine eligibility for forward-looking support. If the statewide average cost per line exceeds two standard deviations of the national average cost per line (the “national cost benchmark”), the state qualifies for HCM support. Support is provided for all intrastate costs per line that exceed the national benchmark.”

³⁰ NBP, pg. 141.

³¹ As an example, Western Wireless, Inc. which was acquired by Alltel, Inc. has received over \$153,000,000 in high-cost USF support related to its operations in the State of South Dakota. It is unknown how much of that support was re-invested in facilities in the State let alone how much was reinvested in the high-cost, rural areas of the State. Adequate signal coverage for any cellular mobile service throughout the State does, however, continue to be a problem. In 2009 alone, Alltel received in excess of \$34 million based on its South Dakota competitive ETC designation.

³² See, *In the Matter of the Application Filed by Frontier Communications Corporation and Verizon Communications Inc. for Assignment or Transfer of Control*, WC Docket No. 09-95, Released May 21, 2010. The Commission found that the primary public interest benefit is increased broadband deployment in the transaction market area, which consists of rural and smaller cities in 14 states. Based on the record, Verizon has not focused investment in these areas and has shown no indication that it will change course in the future (§56).

service at a lower cost.”³³ Competitive Eligible Telecommunications Carrier (“CETC”) support has more than doubled since 2005 and with the exception of the small increase attributable to rural ILECs, is solely responsible for the rampant growth in the size of the high-cost fund.³⁴ It should be further noted that since many of these CETCs can cherry-pick the most profitable and low-cost areas to serve, their service costs will, only by chance, represent the actual costs associated with serving a RLEC’s entire service area. The incumbents’ embedded costs are the most reliable metric available in determining what it costs to serve a high-cost area, and, as discussed later, the elimination of the CETC “identical support rule” should be accomplished promptly.

B. The Notice’s Proposal to Use a Cost Modeling Process Relies on Undefined Standards and Does Not Comply with the Act

The Notice asks for comment on various reforms to universal service, ostensibly to expand the provision of broadband service and to do so in “an efficient, targeted manner that avoids waste and minimizes burdens on American consumers.”³⁵ To this end, the Notice seeks comment on the use of a model in connection with universal service support levels in areas “where there is no private sector business case to provide broadband and voice services.”³⁶ Relatedly, the Commission states that it seeks comment on “whether the Commission should develop a nationwide broadband model to estimate support levels for the provision of broadband

³³ Notice at ¶3.

³⁴ See, *Federal-State Joint Board on Universal Service, Monitoring Report on Universal Service*, (rel. Dec. 21, 2009), Table 3.2.

³⁵ Notice at ¶2.

³⁶ *Id.*

and voice service in areas that are currently served by broadband with the aid of legacy high-cost support, as well as areas that are unserved.”³⁷

No information is provided, though, on how any of the proposed reforms will achieve the goals enumerated in Section 254 of the Act and in prior Commission precedent. As the Commission is aware, Section 254(b) of the Act requires it to follow certain principles including:

1. Consumers in all regions of the Nation should have access to telecommunications and information services that are reasonably comparable to those services provided in urban areas and at reasonably comparable rates (254(b)(3)); and

2. Support should be specific, predictable and sufficient to preserve and advance universal service (254(b)(5)).

It is certainly noteworthy that neither the Act nor the Commission’s prior universal service orders have adopted a standard that universal service support should be provided only in areas where there is no “private sector business case to provide broadband and voice services.” The Notice itself provides no clue as to how this standard will be determined. And, although the Notice does indicate that the broadband maps being developed by the states (through NTIA grants) will provide information concerning areas that do not have broadband, these maps will simply present a snapshot of the extent of broadband service in 2009.³⁸ They will provide no analysis of whether there is a private sector business case for broadband service in any particular area, whether it is currently served or not.

Even if an area currently does not have broadband service, particularly an area served by a legacy Regional Bell Operating Company (RBOC), this fact alone is not proof that there is no private sector business case for broadband service. On the contrary, it may be that the RBOC,

³⁷ *Id.* at ¶17.

³⁸ *Id.* at ¶43; FN 97.

subject to the slimmed-down regulation of the price cap mechanism, removed revenues from its rural exchanges and invested them where they would provide a greater return on its investment. If these companies are now to be eligible for universal service support under a new standard, the Commission should “reset” the bargain struck and audit the companies to ensure that they are not inappropriately “removing” revenues from or “adding” costs to rural exchanges.

Moreover, the fact that part of a rural ILEC’s service area has competitive broadband service from an entity that does not receive high-cost support does not demonstrate that there is a “private sector business case” for broadband service throughout the service area. As found by the Joint Board, “[n]ew entrants often compete only in densely populated areas that have relatively low costs.”³⁹ New entrants may not even serve the entire “low cost” area of a rural ILEC. This is demonstrated by the example of the cable operator in Brookings, South Dakota who applied for a certificate of public convenience and necessity but limited its application to serve areas where its existing cable facilities are located. It was clear from the application that the cable company’s existing facilities did not provide service to all areas of the city or to all consumers in the city. Further, the existing facilities were not capable of providing service to new areas being developed in the city. Thus, even though the company was seeking to serve only the city of Brookings, it specifically designed its request so that it would not have to expand its facilities to serve all existing or new consumers in the city and within the service area of the ILEC. This provides ample evidence that even though there may be a competitive broadband provider serving part of an ILEC’s service area, it cannot be concluded that there is a “private sector business case” to serve the entire service area.

³⁹ *In the Matter of High-Cost Universal Service Support; Federal-State Joint Board on Universal Service*, 22 FCC Rcd 20477, 20486, ¶39 (November 2007)(“2007 Joint Board Order”) at ¶22.

Thus, the Notice’s simplistic approach for determining areas eligible for support is flawed. Moreover, as demonstrated below, the use of a model and the other universal service reforms discussed in the Notice do not comply with the Act and should not be applied to rural carriers.

C. The Use of Cost Models and Market-Based Mechanisms in Rural Carrier Service Areas Would Lead to Insufficient Support and Downgraded Service

Although the NBP assumed a market-based mechanism to select which providers will receive support and the amount of support they will receive, the Notice asks whether a cost model “would be an important tool, even if the Commission uses a market-based mechanism to identify supported entities and support levels...”⁴⁰ For example, the Notice suggests that a model could be used to set a reserve price in a reverse auction. The Notice also asks whether a model could be a tool in determining support amounts “where the Commission determines that it is unable to use a competitive bidding mechanism.”⁴¹

1. Use of the Proposed Mechanisms is Unsupported

There is no support for the Notice’s conclusions in favor of either of these mechanisms. On the contrary, the record is well developed that a model or reverse auction would not effectively determine the appropriate amount of support and, therefore, support based on a model or a reverse auction mechanism would adversely impact consumers in rural ILEC service areas.

Although the Commission adopted the use of a forward-looking cost model for determining universal service support for non-rural incumbent LECs in 1997, the Commission found that it was not appropriate to use the same mechanism for rural ILECs. Rather, the

⁴⁰ Notice at ¶20.

⁴¹ *Id.* at ¶22.

Commission found that because of the unique circumstances of these carriers, their support should be based on embedded cost. Specifically, in the *First Report and Order*, the Commission found that “rural carriers generally serve fewer subscribers, serve more sparsely populated areas, and generally do not benefit as much from economies of scale and scope.”⁴² The Commission further found that for many rural carriers, universal service support provides a large share of the carriers’ revenues, and thus, any sudden change in the support mechanisms may disproportionately affect rural carrier operations. In South Dakota the percentage of total revenues received by the RLECs from the federal high-cost fund is, on average, in the range of 20-25 percent.

The Commission concluded that because of the diverse circumstances of rural carriers, the proposed forward-looking mechanisms could not accurately predict the costs of serving rural areas. In the *Fourteenth Report and Order*, the Commission found that it still was not able to move to a forward-looking mechanism for rural carriers.⁴³ In 2007, the Joint Board found that under the existing support mechanisms, the rural LECs “have done a commendable job of providing voice and broadband services to their subscribers.”⁴⁴ Therefore, the Joint Board found that “it is in the public interest to maintain, for the present, the existing RLEC support mechanisms, distributed through the proposed [Provider of Last Resort Fund].”⁴⁵

For the same reasons, the proposed model should not be used to determine universal service support for RLECs. Although the Notice states there have been improvements in

⁴² *Federal-State Joint Board on Universal Service*, First Report and Order, CC Docket No. 96-45, 12 FCC Rcd 8776, 8936 (1997)(*First Report and Order*).

⁴³ *In the Matter of Federal-State Joint Board on Universal Service; Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, Fourteenth Report and Order, CC Docket No. 96-45, 00-256, 16 FCC Rcd 11244, 11256 (2001)(*Fourteenth Report and Order*).

⁴⁴ 2007 Joint Board Order at ¶39.

⁴⁵ *Id.*

modeling, there is no evidence that the proposed model, or any other model, can overcome the problems identified by the Commission. In addition, the NBP model cannot be used for this purpose under Commission precedent and the rules of administrative procedure, because the Commission has not made the model available to the public for testing and analysis.⁴⁶ In short, the same problems found by the Commission thirteen years ago continue. Therefore, use of a model is inappropriate today.

The record before the Commission also demonstrates that reverse auctions are not an effective mechanism to achieve universal service in rural LEC service areas. Among the many weaknesses of a reverse auction, they encourage bidders to underestimate the cost of providing service in order to win the bidding process. In this way, the low bidder can drive out competition and receive federal support, even if that support is lower than what is actually needed to provide sustainable, high-quality services. This result undercuts the very purpose of the Universal Service mechanism.⁴⁷

2. The Proposed Mechanisms Fail to Meet the Requirements of Section 254

Neither the modeling proposed nor the reverse auction mechanism proposals would meet the requirement in Section 254(b)(3) requiring reasonably comparable service in rural and urban areas. This result obtains because the proposed mechanisms will produce non-comparable speeds – only 4 Mbps downstream and 1 Mbps upstream. These speeds are not at all comparable to urban areas. Broadband services are already available at far greater speeds in non-rural areas. Indeed, the NBP's goal is to provide 100 million homes with access to actual download speeds

⁴⁶ *Id* at 8915.

⁴⁷ See, generally, *Comments of the Organization for the Promotion and Advancement of Small Telecommunications Companies*, WC Docket 05-337, CC Docket 96-45, (filed April 17, 2008); *Comments of the National Exchange Carrier Association*, WC Docket 05-337, CC 96-45, filed April 17, 2008.

of at least 100 Mbps and actual upload speeds of at least 50 Mbps by the year 2020.⁴⁸ Thus, the mechanisms under consideration in the Notice would lead to a sharp divide in service comparability, directly contrary to Section 254(b). This defect is not cured even if the Commission reviews the speed threshold in four years, as suggested by the NBP. The universal service recipient's network investment, engineering plans and business case will have been based on the original threshold, but there can be no expectation that the service provider will be willing to meet the new threshold at the old universal service amount.

History further proves this point. It shows that the Commission model provided support based on voice service, but broadband upgrades were not made in a significant portion of the rural areas served by the non-rural carriers. On the other hand, RLECs that received support based on their embedded costs, to a much larger extent, invested in broadband services.

D. A Model Would Not Ensure Funds are Used for Intended Purposes or Minimize Waste, Fraud, and Abuse

The Notice seeks comment on “whether the analysis and economic model that Commission staff used to estimate the broadband availability gap in unserved areas provides a useful foundation for calculating the support levels needed for the CAF in a way that minimizes waste, fraud, and abuse.”⁴⁹ Without more detail on the “waste, fraud, and abuse” that the Notice is addressing, it is difficult to determine whether the model can calculate support levels to minimize these perceived, but not identified, problems. Further, it is not clear how a model, under any circumstance, can be used to minimize or detect waste, fraud, or abuse. The Commission and the public would be better served by extending COLR or similar obligations to those entities receiving CAF support and by implementing sufficient procedures to ensure that

⁴⁸ NBP, p. XIV.

⁴⁹ Notice at ¶14.

result and that support monies are properly expended. For example, the Commission could condition the receipt of CAF support by requiring that the carrier/provider meet certain set target dates for providing broadband access, at predetermined speeds, to a specific percentage of subscribers within a targeted rural service area.

E. Calculating CAF Support Without Regard to the Actual Service Areas Results in Substantial Inaccuracies and Inefficiencies

The Notice seeks comment on what geographic area should be used “in calculating the cost of deploying a network and providing services, and whether it should use neutral geographic units, as recommended in the National Broadband Plan.”⁵⁰ Focusing entirely on the funding of these neutral geographic units, rather than the providers and the service areas in which they actually operate, will create greater inefficiencies than those alleged with respect to current USF mechanisms. According to the Notice, “in the real world, private sector firms typically will evaluate the profitability of deployment decisions at a larger, more aggregated service-area level than a census block.”⁵¹ However, by conducting the NBP model analysis at the county level, and subsequently requesting comments on whether using county level data is a workable approach for future universal service funding decisions,⁵² the Notice disregards the “real world” system of ILEC network deployment and service provision in the state approved service areas in which they are authorized to operate.

As the Commission is aware, incumbent local exchange carriers are certificated to provide local service in a state commission defined area. This area rarely aligns with county boundaries. The area may be smaller than the county in which it operates and may also overlap

⁵⁰ Notice at ¶42.

⁵¹ *Id.* at ¶41.

⁵² *Id.* at ¶42.

multiple counties without providing service to the entirety of any county within its certificated area. In order for an ILEC to expand its service area beyond its service area, the ILEC must first get approval from the state commission for such expansion. If CAF support is distributed at the county-level, it must then be determined how support would be divided among the multiple carriers providing service in the same county. If, as a condition of receiving support, an ILEC is required to provide service in an area that matches the geographical boundaries of counties lines, the ILEC would either be required to provide competitive services in the areas in which it does not currently provide services, purchase the property, plant, and equipment of the other ILEC providing service in the same county, or jointly provide service with other existing ILECs. If auctions are held to provide funding at the county level and the ILEC (which already has a broadband-capable network in place) is not the winner of the auction, it would be very difficult for the ILEC to continue to provide service over those facilities without continued support.

The Commission should accordingly reject this proposal as bad policy, particularly since the wasting of the embedded investment will have been financed with federal dollars.

F. The BAM Does Not Produce Accurate Reflections of the Deployment, Maintenance, and Operation Costs of a Broadband Network in Rural, High-Cost Areas

In addition to the general concerns noted above concerning use of any costing model for purposes of determining universal service support distributions for rural carriers, SDTA has concerns related to the proposed Broadband Assessment Model (BAM) for determining universal service support under the CAF. These concerns are briefly addressed below.

1. Errors in the BAM's Assumptions Result in Misleading Conclusions

In comparing broadband technologies, it appears that the BAM does not assign any value to the fact that DSL technology is scalable, and that higher speeds may be possible through

incremental investment over time. The BAM overestimates 4G wireless availability, by assuming availability in South Dakota's counties if a carrier has announced future plans to deliver 4G.⁵³ The data released by the Commission indicates that, based on announced 4G deployment, over half of the counties in South Dakota will have 100% 4G availability and only 7 of the total 66 counties will have less than 80% of 4G availability. Whereas, the BAM as described in the OBI Technical Paper not only took a static view of DSL deployment, it also underestimated the availability of wireline broadband Internet service in some RLEC counties. The BAM also appears to have not taken into consideration the possibility that DSL could be deployed closer to consumer homes in the future, reducing the proportion of areas that would be considered unserved. Overestimating the availability of 4G while underestimating the availability of wireline broadband Internet service will certainly change the investment gap per housing unit for each county in South Dakota, which casts doubt on the results (as set forth in Exhibit 1-I),⁵⁴ at least for South Dakota.

Further, instead of building towards the future network,⁵⁵ the BAM focuses on an exceedingly short-term goal of achieving the 4/1Mbps speed target. Such an approach will likely raise the long-term universal service costs having to overlay a network only capable of achieving a short-term goal, with a later one capable of providing the broadband capacity and services the public demands.

Moreover, the current growth in broadband capacity establishes that the 4/1Mbps standard will be obsolete even prior to the NBP's implementation. Still, the NBP recommends that the 4/1Mbps initial broadband availability target be reviewed every four years. Thus, the

⁵³ OBI Technical Paper No. 1, pg. 130.

⁵⁴ *Id.* at 12.

⁵⁵ *Id.* at 13.

current target will remain in place until at least 2014. If, based upon the initial 4/1Mbps target, 4G technology is utilized to serve some of the identified unserved areas, the BAM's calculation of the investment gap does not calculate the financial inadequacies of the model if the target is later modified to a faster threshold speed. Any potential funding expended on building out 4G infrastructure to meet the "moving" speed target can be more efficiently used to build out to unserved areas with scalable DSL technology. Thus, higher speeds will be available when the target is later increased. The BAM's assumptions have, therefore, erroneously failed to consider the most cost effective solution.

2. Errors in the BAM's Investment Gap Calculation

According to the OBI Technical Paper, the BAM was developed to calculate the investment gap (*i.e.*, the amount of funding) required to offer broadband Internet access service at speeds of 4/1 Mbps in areas that are determined unserved on a net present value ("NPV") basis. The NBP model, however, fails to calculate or project the amount of funding from either current support mechanisms or the CAF that will be required to maintain existing broadband-capable networks that meet or exceed the 4/1 Mbps threshold. Because the model does not determine the future CAF size or individual carrier CAF support, it fails to take into consideration the un-depreciated, unrecovered portions of existing broadband infrastructure and the ongoing costs to operate and maintain broadband-capable networks provided by rural carriers in rural, high-cost areas. If the Commission were to use a similar approach for sizing any future CAF, it must include both the un-depreciated portion of the existing broadband network and the ongoing costs to operate the network in its calculations.

3. Errors in the BAM's Determination of Small Carrier Impact

The model's calculation of carrier support levels also contains errors which could have a major impact on a small carrier's operations. The National Broadband Plan's documentation claims the model's overall results are acceptably accurate. This claim is based on the law of large numbers. The documentation states that while the model produces a significant number of false results at the level of small geographic units, such errors, due to the large number of observations, will tend to balance each other out when the results are aggregated into relatively large regions such as entire states. Despite the fact that the Commission did not release the actual diagnostic statistics on the model's accuracy, it expects interested parties to accept that in the end, the errors balance out at the level of larger geographic regions. Small, rural carriers do not serve large areas. In fact, very often they only serve parts of a county, or small areas within a few counties. Based on the explanation above, the results of the Commission's model are likely to produce false results at the level of small areas that rural carriers serve. On the other hand, for large carriers serving multiple geographic units, the errors are likely to cancel out or at least be small. A small error is likely to do no harm for a large carrier, while the error of the same magnitude can be devastating to a small, rural carrier.

The revenue received from existing universal service support mechanisms accounts for a large percentage of a rural LEC's total monthly revenue and has been a critical element in the construction and operation of broadband-capable networks to end-users located in rural, high-cost areas. The model's current flaws, as discussed, provide cold comfort that such high cost support would be available in a manner to meet these requirements.

G. The Broadband Availability Target Does Not Reflect Actual Broadband Needs in Rural Areas

The initial broadband availability target of 4 Mbps actual download speed and 1 Mbps actual upload speed is too low. Considering the fact that in the first half of 2009 the median speed was 3.1 Mbps and was expected to exceed 4 Mbps by the end of 2010,⁵⁶ the creators of the NBP should not have set 4/1 Mbps as the target speed for broadband in remote, rural areas. The proposed speed is not sufficient to develop and enhance small businesses in rural areas, work-from-home opportunities, telemedicine and distance learning, applications which could require download speeds of up to 100 Mbps.⁵⁷ While the NBP recommends that the Commission review and reset this target speed every four years, the 4/1 Mbps would serve as the standard for support funding and, as earlier discussed, would not be reviewed or adjusted until 2014. By 2013-2014, wired broadband service providers estimate that they expect to offer broadband to approximately 90% of homes with advertised speeds of 50 Mbps downstream.⁵⁸ According to the CITI Paper, increases in overall Internet usage will translate into rapidly growing per subscriber volumes, surpassing 80 Gbps per subscriber per month.⁵⁹ Based upon the current growth rate estimated by the Commission,⁶⁰ not only will the 4/1 Mbps standard probably be obsolete before the end of even this current year, but public capacity demand will exceed the capacity offered by fixed wireless before the next standard review in 2014. Since wireless bandwidth is shared, it is unclear whether transmission speeds greater than 5 Mbps can be obtained by more than a few

⁵⁶ OBI Technical Paper No. 1, pg. 43.

⁵⁷ Vantage Point Solutions, *Providing World-Class Broadband: The Future of Wireless and Wireline Broadband Technologies*, pg. 3.

⁵⁸ See, *Broadband in America, Preliminary Report Prepared for the Staff of the FCC's Omnibus Broadband Initiative*, by Robert C. Atkinson and Ivy E. Schultz, Columbia Institute for Tele-Information ("CITI Paper"), November 11, 2009, at pg. 7.

⁵⁹ CITI Paper at 50.

⁶⁰ NBP, pg. 50 FN3; OBP Technical Paper No. 1, pg. 42.

subscribers at the same time.⁶¹ In the interest of efficiency, the Commission should not imprudently expend resources to construct a network which cannot meet consumers' demand expectations before or shortly after the build-out is completed.

Additionally, because the investment gap was determined by calculating the NPV of cash flow over a project's lifetime of 20 years and the 4/1 Mbps target was factored into that calculation, it could be concluded that the 4/1 Mbps standard is what the Commission anticipated as the speed offering in many rural areas in the year 2032. In the *Report on a Rural Broadband Strategy*, Commissioner Copps recognized that broadband networks should be built in anticipation of future bandwidth demand. The *Report* acknowledged that:

...given the high fixed costs of constructing broadband networks, once built, they are not likely to be replaced, especially in rural areas that are unserved today. As a consequence, we believe that networks deployed in rural areas should not merely be adequate for current bandwidth demands. Instead, they also should be readily upgradeable to meet bandwidth demands of the future. Bandwidth-intensive applications could very quickly become the norm in the U.S.-even in rural areas. Technologies that cannot be upgraded easily could make Internet applications less than five years from now look like the dial-up downloads of today.⁶²

Nevertheless, the conclusions established in the *Report* were not used as a blueprint in the compilation of the NBP and the corresponding OBI Technical Paper. Instead, the creators of the NBP determined that since future demand is uncertain, "building a future-proof network immediately is likely more expensive than paying for future upgrades."⁶³ Unfortunately, the Commission's focus on building a fixed wireless network that is not sufficient for the future will

⁶¹ CITI Paper at 23.

⁶² Federal Communications Commission, *Bringing Broadband to Rural America: Report on a Rural Broadband Strategy*, Michael J. Copps, Acting Chairman, (rel. May 22, 2009).

⁶³ OBI Technical Paper No. 1, pg. 41.

create wasteful and inefficient spending on an obsolete network that will be the equivalent to the dial-up downloads of yesterday.

When taking into account the significant progress South Dakota RLECs have already made in broadband Internet access deployment, utilizing universal service support, it seems paradoxical that the Notice would propose a model which underestimates the capacity demand, and which further disregards the critical role which a robust wireline network plays in meeting this demand.

V. The Notice of Proposed Rulemaking’s Assumptions and Proposed Solutions to “Legacy” Inefficiencies are Flawed

The Notice proposes capping then cutting the existing (“legacy”) high-cost support program, and requiring incumbent LECs, currently subject to rate of return regulations, to convert to price cap regulation. The Notice also seeks comment on a proposal to essentially do away with common line rate of return regulation in the meantime, by freezing incumbent LECs’ interstate common line support (“ICLS”).⁶⁴

SDTA respectfully submits that the Notice’s identification of the problems facing the high-cost fund is overbroad, doctrinaire and not factually supported. The problems and causes of growth in the fund are well known and subject to specific solutions. But, the “targeted” solutions which the Commission seeks to implement (*e.g.* to distribute funds “...where no firm can operate profitably without government support...” and to distribute funds based on forward-looking proxy models;⁶⁵), are not rationally related to the statutory goals set forth in Section 254 of the Act,⁶⁶ and effectively throw the baby out with the bathwater. The Notice’s proposals to force

⁶⁴ Notice at ¶¶51-56.

⁶⁵ *Id.* at ¶51.

⁶⁶ 47 U.S.C. § 254

incumbent LECs to incentive, or price-cap, regulation occupy a similar posture. The solution is not rationally related to any problem that needs to be addressed. To be sure, intercarrier compensation needs reform, such as dealing with the problem of phantom traffic and VOIP traffic arbitrage, as mentioned in the NBP.⁶⁷ But, the Notice does not address these specific problems, instead taking a ‘one size fits all’ approach, previously rejected by the Commission.

These points are discussed in order.

A. The Notice’s Analysis is Overbroad

At its core, the Notice’s proposals are fueled by the proposition that legacy high-cost funding and intercarrier compensation for incumbent local exchange carriers are inefficient.⁶⁸ Though there is no provision of data or other citation to anchor this central pillar to many of the Commission’s proposals -- indeed, the authors of the Notice freely admit that data covering the existence and location of broadband infrastructure, critical to the proffered high-cost model, is simply made up⁶⁹ -- the Notice proceeds untroubled by this assumption.

SDTA respectfully submits that the real facts about the rural ILECs’ use of the existing high-cost support dollars, together with similar information about existing intercarrier compensation (and particularly interstate access charges) point to a more targeted, less damaging approach for the industry sector primarily responsible for deploying rural broadband infrastructure to date. As indicated earlier, on average, the high cost funding accounts for 20-25% of the total revenues received by SD RLECs. If all interstate access and intrastate access

⁶⁷ NBP, pg. 148.

⁶⁸ Notice at ¶18; ¶53.

⁶⁹ See, Notice at ¶12 (“...the Commission does not presently have access to a comprehensive data set, at the required level of geographic granularity, regarding availability and infrastructure ...”).

service revenues are included and added to the high cost funding revenues, the average percentage of total revenues is in excess of 60%.⁷⁰

As previously discussed, both the Notice and the NBP take it as a given that ILECs and/or their use of federal funds is inefficient. However, no support is provided in either document for this claim.

The last time the high-cost issue was examined by elected and appointed public officials was in 2007. There, the Federal-State Joint Board examined both the growth in the high-cost fund, by industry, and examined the qualitative role of rural ILECs in broadband deployment. These findings do anything but justify a scorched earth USF policy. For instance, the Joint Board identified competitive LECs (principally the wireless industry) for the rapid increases in the high-cost fund:

The Joint Board recognizes that the identical support rule has resulted in the subsidization of multiple voice networks in numerous areas and greatly increased the size of the high-cost fund. High-cost support has been rapidly increasing in recent years due to increased support provided to competitive ETCs. [Emphasis added]. These carriers receive high-cost support based on the per-line support that the incumbent LECs receive rather than the competitive ETCs' own costs. Support for competitive ETCs has risen to almost \$ 1 billion. [fn. omitted] We believe it is no longer in the public interest to use federal universal service support to subsidize competition and build duplicate networks in high-cost areas. Consistent with the Joint Board Public Notice released in September 2007, (fn. omitted] we recommend that the Commission eliminate the identical support rule. The rule bears little or no relationship to the amount of money competitive ETCs have invested in rural and other high-cost areas of the country. [fn omitted]⁷¹

In contrast, the Joint Board recognized that rural incumbent LECs had contributed no upward pressure on the high-cost fund, while doing “a commendable job of providing voice and broadband services to their subscribers”:

⁷⁰ This would include all access revenues, both switched and special access service revenues.

⁷¹ See 2007 Joint Board Order, 22 FCC Rcd at 20486, ¶35.

Support to most if not all ILECs has been flat or even declined since 2003 (fn omitted). Under existing support mechanisms, RLECs have done a commendable job of providing voice and broadband services to their subscribers. Therefore, the Joint Board believes it is in the public interest to maintain, for the present, the existing RLEC support mechanisms, distributed through the POLR Fund. Funding for the RLECs will continue to be based, for the present, on the provider's embedded costs as supported by modeling, but may be subject to a competitive bid approach at a later date. [Emphasis added]⁷²

Since that time, there have been few Commission occasions to address the size of the high-cost fund, except for major wireless transactions. In two of these involving acquisition transactions with Alltel Corporation, the Commission has required Alltel's federal high-cost receipts to be capped, and then divested completely, as the largest single high-cost recipient in the country.⁷³

In a similar vein, the Commission has previously required "...a more stringent public interest analysis for ETC designations in rural telephone company service areas."⁷⁴ Key to this more stringent analysis was a concern that wireless ETCs would not plough their USF receipts back into infrastructure. Both *Highland Cellular* and *Virginia Cellular* contain cell site construction commitments which reflect this policy.⁷⁵

Further, the Notice seeks comment on rate of return carriers to mandatory incentive regulation, citing the National Broadband Plan's findings that rate of return regulation is

⁷² *Id.* at ¶39.

⁷³ See, *In re: Applications of Atlantis Holdings LLC and Cellco Partnership d/b/a Verizon Wireless for Consent to Transfer of Control of Commission Licenses and Authorization Pursuant to Sections 214 and 310(d) of the Communications Act*, WT Docket No 08-95, 23 FCC Rcd 17444, Memorandum Opinion and Order and Declaratory Ruling, (FCC 08-258, released November 2008).

⁷⁴ See, *In the Matter of Federal-State Joint Board on Universal Service; Highland Cellular, Inc. Petition for Designation as an Eligible Telecommunications Carrier in the Commonwealth of Virginia*, 19 FCC Rcd 6422 at ¶4 (Feb. 24, 2004) ("Highland Cellular").

⁷⁵ See, *Highland Cellular*, at ¶17; *In the Matter of Federal-State Joint Board on Universal Service; Virginia Cellular, LLC Petition for Designation as an Eligible Telecommunications Carrier In the Commonwealth of Virginia*, 19 FCC Rcd 1563 at ¶16 (December 31, 2003).

inefficient.⁷⁶ As with the case of alleged inefficient use of high-cost funds by rural ILECs, no data is cited. A more general proposition based upon a 1990 FCC decision on price cap regulation appears to be the source of this statement.⁷⁷

However, since the referenced 1990 Order relied upon in the National Broadband Plan, the FCC has recognized that cost recovery based upon an embedded, rate of return methodology for non-price cap carriers, is reasonable:

We agree with commenters that favor a forward-looking economic cost methodology as the ideal method for determining appropriate levels of explicit rate-of-return carriers. [fn omitted] As the Commission recognized in the rural Task Force Order, however, a forward-looking economic cost mechanism is not feasible at this time.

* * * * *

Based upon our examination of the record, therefore, we conclude that determining the appropriate level of interstate support for rate-of-return carriers based on embedded costs is a reasonable and prudent approach at this time.⁷⁸

The quoted Order makes clear the Commission's intent to act cautiously in view of the importance of the common line revenue stream to rate of return carriers:

Under the circumstances, we are adopting a cautious approach which removes identifiable implicit support from the rate structure by converting the CCL charge to explicit support without operating overall recovery of interstate loop costs, thereby safeguarding this important revenue stream for rate-of-return carriers.⁷⁹

Id. at ¶130 (emphasis supplied)

⁷⁶ Notice at ¶54 (citing NBP at 147).

⁷⁷ NBP at 147, n 95.

⁷⁸ See, *In the matter of Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers; Federal-State Joint Board on Universal Service; Access Charge Reform for Incumbent Local Exchange Carriers Subject to Rate-of-Return Regulation; Prescribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers*, 16 FCC Rcd 19613, 19668 at ¶129 (November 8, 2001) ("MAG Order").

⁷⁹ *Id.* at ¶131 (Emphasis Supplied).

We find that it is necessary to act cautiously in sizing the Interstate Common Line Support mechanism. Our examination of the record reveals that rate-of-return carriers generally are more dependent on their interstate access charge revenue streams and universal service support than price cap carriers and, therefore more sensitive to disruption of those streams.

The Commission rejected a suggestion to cap common line support based upon a similar finding that such a cap “would cause some carriers to receive less explicit support than the implicit support they receive through the CCL charge[]” and thus create pressures to “reduce service quality, increase local rates or limit service offerings.”⁸⁰

Several years later, in the context of evaluating ETC designation applications for rural ILECs, the Commission expressed concern about the effect of competitive ETCs upon rural ILEC revenue streams.⁸¹

Against this background, it is hardly clear that rural ILECs, or rate-of-return ILECs as a class, are inefficient in the way they receive or expend federal high-cost federal revenue streams. SDTA respectfully suggests that the substitution of economic theory, as appears to be the case in the Notice, for approximately two decades of Commission experience and factual findings, would constitute bad public policy, to say the least.

As discussed below, the public interest demands a more calibrated approach than a scorched earth USF mechanism, or mandatory price-cap incentive regulation. There simply is no mass scale inefficiency which warrants anything else.

B. The Commission’s Proposals should be More Closely Targeted

As discussed above, the Notice’s proposals should be tailored more narrowly. High-cost reform should immediately focus upon eliminating the identical support rule, as recommended

⁸⁰ *Id.* at ¶132.

⁸¹ *See, generally Highland Cellular and Virginia Cellular.*

by the Joint Board,⁸² and the Commission should focus on fraud, waste and abuse in the low income fund. SDTA believes that the fastest growing burden on the USF program is this fund; an unsurprising fact given the fact that the largest participants are little more than federally funded cellular customer equipment outlets.⁸³ Indeed, the states appear very concerned about fraud in the programs.⁸⁴ Thus, cutting real waste, fraud and abuse from those sources should be a first priority in reforming the USF program.

The current record in this proceeding contains more targeted proposals to allocate USF revenues for the deployment of rural broadband. The National Exchange Carrier Association has made one such proposal based upon a benchmark mechanism, keyed to urban broadband transmission costs.⁸⁵ The Commission should carefully consider these more targeted proposals instead of potentially disruptive and harmful alternatives proposed in the instant Notice.

As previously noted, the Commission should proceed more cautiously before it moves in the direction of eliminating rate of return regulation. Experience shows that the largest carriers have not to date utilized the price cap mechanism to deploy modern services to their high-cost regions. SDTA's membership includes many companies who purchased rural properties in South Dakota from Qwest's predecessor in interest, US West.⁸⁶ Significant infrastructure

⁸² 2007 Joint Board Order at ¶5.

⁸³ See, *Petition of TracFone Wireless, Inc. for Forbearance from 47 U.S.C. § 214(e)(1)(A) and 47 C.F.R. § 54.201(i)*, CC Docket No. 96-45, Order, 20 FCC Rcd 15095 (2005) and *Virgin Mobile USA, L.P. Petition for Forbearance from 47 U.S.C. § 214(e)(1)(A)*, CC Docket No. 96-45, Order, 24 FCC Rcd 3381 (2009).

⁸⁴ See, e.g., *Comments of the Public Service Commission of the District of Columbia*, WC Docket 09-197, filed April 14, 2010; *Opposition of the Public Service Commission of the District of Columbia*, CC Docket No. 96-45, filed July 6, 2009; *Comments Submitted on Behalf of the Public Utilities Commission of Ohio*, WC Docket No. 03-109, filed November 19, 2009;

⁸⁵ See, *Comments of the National Exchange Carrier Association, Inc. on NBP Public Notice #19*, GN Docket Nos. 09-47, 09-51, 09-137, (Dec. 7, 2009).

⁸⁶ See, *In the Matter of Petitions for Waivers Filed by Accent Communications, Inc. et. al, Concerning Sections 61.41(c)(2), 69.3(e)(11) and 69.605(c) and the Definition of "Study Area" Contained in the Part 36 Appendix-Glossary of the Commission's Rules*, 11 FCC Rcd 11513 (FCC No DA 96-570, 1996)

upgrades were required to modernize the plant in these acquired exchanges, post transaction.⁸⁷

Indeed, if price caps were such a successful mechanism, the large price cap carriers would have already filled the broadband gaps in the service area that the Commission seems most concerned with today.

This is not to say that intercarrier compensation is without need of reform. The NBP acknowledges the need to deal with regulatory arbitrage in its various forms, including phantom traffic and treatment of VOIP traffic.⁸⁸ Important though these subjects are, they appear to be wholly absent in the Notice. Indeed, SDTA respectfully submits that the Commission's prior failure to deal with these issues is a primary factor affecting the viability of the interstate access charge mechanism. The Commission should directly address the pressure which such unprincipled free use of the network represents, rather than the effect, which in this case appears to be jettisoning the mechanism itself. No one would rationally think of closing a store afflicted with burglaries, for instance, without at least trying to stop the theft in the first instance.

As previously referenced, SDTA submits that leaving the current rate of return mechanism for a price cap/incentive mechanism (already discredited by historical fact) does more harm than good. The Commission should address unprincipled network arbitrage before anything else.

As a final comment on the Notice's intercarrier compensation reform proposal, SDTA urges the Commission not to convert ICLS to a frozen amount per line, as proposed.⁸⁹ The Commission previously refused to take similar action in rejecting a cap, given the particular

⁸⁷ *Id.* at ¶8.

⁸⁸ NBP, pg. 148.

⁸⁹ Notice at ¶55.

concerns of rate-of-return carriers and sensitivity to the revenue disruption that would result.⁹⁰

The Commission earlier adopted the ICLS rate structure “without affecting recovery of interstate loop costs.”⁹¹

The Notice’s current proposal would accomplish precisely the result that the Commission earlier avoided, since frozen common line amounts will necessarily fail to keep pace with the additional infrastructure investment envisioned here. None of the underlying facts have changed, however, rendering an arbitrary and capricious hurdle harder to clear for a decision adopting the proposed freeze, as discussed further below.

Moreover, the proposal to freeze ICLS costs, thereby essentially deregulating common line cost recovery (and thereby ensuring common line cost under-recovery), violates the plain requirements of *Smith v. Illinois Bell Telephone Co.*⁹² *Smith* is commonly referred to as the bedrock of modern separations procedure,⁹³ and more importantly required the interstate jurisdiction to pay its fair share of common costs by the abandonment of “board to board” ratemaking. The Notice’s proposal to simply ignore these costs through a freeze violates *Smith*’s core requirement, and should be rejected.

VI. South Dakota RLEC Broadband Operations are the Lifeblood of Many of South Dakota’s Rural Communities

As the Commission considers the proposals set forth in its Notice, SDTA implores the Commission to proceed cautiously and to not overlook the real challenges confronted by

⁹⁰ *MAG Order* at ¶130-131.

⁹¹ *Id.* at ¶130.

⁹² *Smith v. Illinois Bell Telephone Co.*, 282 U.S. 133, 75 L.Ed. 255, 51 S. Ct. L 75 (1930) (“*Smith*”).

⁹³ See, e.g. *In the Matter of Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, 25 FCC Rcd 3457 at FN 3 (March 2010).

SDTA's members. South Dakota is one of the most sparsely populated and highest cost states to serve in all of the United States.

As is stated in the NBP, "[b]roadband is becoming a prerequisite to economic opportunity for individuals, small businesses and communities."⁹⁴ Those without broadband and the skills to use broadband-enabled technologies are becoming more isolated from the modern American economy."⁹⁵ The importance of access to high-speed broadband services to the rural areas, such as those areas served by the SDTA member companies, cannot be overstated.

As noted, South Dakota is one of the most sparsely populated states in the Nation. The average customer density throughout all of the service areas of the SDTA member companies is approximately 2.3 customers per square mile. The companies serve approximately 80 percent of the State's geography, consisting of an area of approximately 62,162 square miles; these same companies, however, serve only about 144,000 access lines. Many of the rural towns spread throughout these areas are very small. The smallest incorporated town, the town of Hillsvie, and the largest the city of Brookings, have populations of 3 and 18,504 residents, respectively. Indeed, many of the rural towns are struggling to exist. Broadband offers an economic lifeline that has the potential to ensure not only the future survival of these towns, but to bring realistic opportunities for their future growth. In addition, in many of these towns and in the surrounding areas broadband services would not even be available, were they not offered by the local rural telephone company. Despite what often seems to be portrayed, there are few carriers that are willing to tackle the substantial increased cost of providing either basic telecommunications or broadband services in highest cost rural areas. There are even fewer that are willing to seriously commit to meeting COLR obligations and providing service to the most remote locations or

⁹⁴ NBP at p 265.

⁹⁵ *Id.*

customers within these areas. It is simply a mistake to conclude that decisions to make infrastructure investments and extend telecommunications services, including broadband services, are based purely on economic considerations. It is no accident that basic telecommunications services and broadband services in many of the highest cost areas of the United States are provided by smaller, locally owned or locally based companies. As noted earlier, many of these companies were the first providers of telephone service in their areas and they were also the first to offer broadband services to their area residents. Just as the decisions of these companies to extend telephone services were, in part, motivated by a strong link to and commitment to the local area, these same considerations are at play in broadband deployment decisions.

An analysis conducted by NECA, NTCA, OPASTCO, WTA and the Rural Alliance reveals that if the “gap” funding produced by the BAM to support presently “unserved” areas were to be used to entirely replace existing high-cost support mechanisms, current total RLEC funding would be slashed by as much as 90 percent. This number only relates to the explicit funding provided through the high cost funding and does not take into account additional losses that may occur if adequate revenue replacement opportunities are not made available in the process of reforming the inter-carrier compensation mechanisms. Very clearly, the scale of the cuts in universal service support which seem contemplated under the proposals in the Notice would have severe negative impacts, threatening not only the continued availability of quality broadband services in the high cost rural areas served by the SD RLECs, but putting in serious jeopardy the very viability of continued SD RLEC operations.

As the Commission considers these proposals for reform, it should consider not just the impacts on the regulated carriers and consumers, but also the ultimate impact that the proposals

would have on the affected rural communities. The SD RLECs, as locally owned or locally based companies, in many ways help sustain the rural communities they serve. The companies are not only focused on providing high quality telecommunications and information services, but also provide economic and social support to their local communities, providing local jobs, providing financial support and volunteered time to their local schools, charitable organizations and local governments, and by diversifying to provide other essential services.

In many cases, the RLEC is one of the major employers in the community, which then creates an opportunity for other businesses to sell their goods and services to these employees. The SDTA members companies and their affiliated entities employ in excess of 1,200 workers, most located within their established rural telephone company service areas. Many of the telecommunications companies have even increased staff over the last few years given the increasing need to provide local technical support to rural area customers related to new and advanced broadband services. The employees pay local, state and federal taxes while living in these communities and provide various other forms of support to the community by contributing financially to and volunteering their free time to work for churches, schools, health care and other community establishments. SDTA member companies also obviously pay state excise taxes, state and local gross receipts taxes, and other taxes related to their regular operations and local presence within the communities where they serve.

South Dakota RLECs also play a key role with rural health care and increased health care technology in their communities. Through the provision of advanced broadband connections, responsive support services and technology education provided to end-user customers, South Dakota RLECs have helped dramatically improve medical services delivered to rural residents. The South Dakota rural health care system relies on the South Dakota RLECs to provide high

speed, reliable, and constant telecommunications and broadband connections not only to health care facilities in the town or population center but also to rural end users needing reliable connections for convenient symptom and home diagnostic research for major and minor health related issues.

South Dakota RLECs also support secondary and higher education in the communities they serve. All of the SDTA member companies in partnership with SDN Communications are participants in South Dakota's "Connecting the Schools Program" which currently provides high speed broadband connections to rural schools throughout South Dakota. These connections have brought distance learning capability and other high capacity applications to even the most remote rural schools in the State. Many of the companies, also in partnership with SDN Communications, are providers of the fiber connections being used for the State's "High Speed Research, Education and Economic Development Network". This entity is a public-private partnership providing ultra high-speed connections to the State's public universities and other key locations needing very high capacity data transport. In addition to providing necessary high speed broadband services to local area schools and other educational institutions in the State, the SD RLECs have been committed to increasing educational opportunities by annually making numerous scholarships available to interested students within their service areas and by also offering internship programs.

South Dakota RLECs also offer enterprise circuit opportunities enabling rural schools to connect to a main school data center, bank branches to connect to their main office, and livestock auctions to broadcast auctions live over the internet. Most of these opportunities are currently offered at asymmetrical speeds of 5 Mbps & higher, and bring the rural communities throughout

South Dakota closer together providing valuable economic and social corridors between rural and rural communities, and rural and urban communities.

Many of the South Dakota RLECs' employees are involved in different capacities with assisting in local emergency or disaster relief services (as a volunteer with local fire department, as an EMT for local emergency response, weather spotters, etc.). One company has 25% of their staff who volunteer over 4,500 hours a year assisting local community organizations and activities with fire departments, churches, 4H Clubs, Rotary, and other civic organizations. In some companies, over one third of the staff volunteer their time to different organizations within their local communities, and many South Dakota RLECs have over 20% of their telephone company staff assisting with local emergency or disaster relief services as listed above.

In addition to recognizing the need for universal service reform as a means of improving access to broadband services, the NBP includes recommendations intended to address the main barriers to the adoption and utilization of broadband services by consumers.⁹⁶ The SD RLECs are fully cognizant of the circumstances within their rural areas that discourage or prevent greater broadband subscription and use and have for a number of years taken actions to address “digital literacy” concerns and cost barriers, among others. Below is a list referencing some of the SDTA member activities which promote broadband adoption and use by their rural customers:

- One South Dakota RLEC offers a computer purchase and training program for only a dollar a day to residents within its service area.
- Many South Dakota RLECs offer free monthly computer and Internet courses to all non-Internet and Internet users that have added the service in the last 24 months, inviting them to attend a course on the basics of computer and Internet use.
- Others have programs to finance computers for end users with zero percent interest with their broadband service.

⁹⁶ NBP pp. 167-190.

- One member company developed a program for their rural farmers and ranchers using a combination of wireless and high-speed Internet technology to monitor livestock, making calving and lambing seasons much easier and much more efficient.
- Some provide free Internet service to libraries and city and economic development offices and free web page hosting to the Community Chambers in each of their communities they serve, as well as free Internet access for major community events such as local farm and home shows.
- Many offer promotions to their end users including, but not limited to, free trials on Internet, free installation and bundling of packages.
- Most include articles in monthly newsletters and e-newsletters on Internet tips, new technology and the benefits of broadband usage, online shopping, travel information, etc.
- Most offer free 24/7 technical support with all services that they offer for sale.
- Most offer local technical support and computer repair services to their customers.
- If not covered by internal staff, many also employ an outside firm to help with technical support issues that may occur outside of the companies' normal business hours.
- Many have held classes in conjunction with their local communities on topics of interest to new users of services or those who just wanted to learn more about a service.
- Some have even implementing an onsite training room within their office buildings where customers are able to come and get hands on training.

All of the above information clearly illustrates the extent to which SD RLECs are committed to the betterment of the rural communities within their service areas and the concept of providing true local service to rural area consumers. The strength of these commitments and the benefits which flow to rural communities as a result should not be ignored. Rural carriers are different than non-rural carriers and, rather than dismissing such differences, they should be accepted and leveraged to accomplish desired ends. Adopting and implementing proposals that are focused around reducing the amount of USF support to rural carriers or which fail to adequately address the revenue losses associated with interstate and intrastate switched access reform will have many negative consequences in rural carrier service areas. Certainly, they would neither foster the goals of increased broadband infrastructure deployment in the rural

carriers' service areas, nor facilitate the NBP's many other objectives, including the objectives which look to improve broadband adoption and use and stimulate economic growth in rural communities.

VII. Conclusion

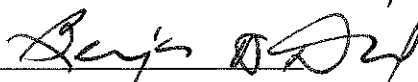
The SDTA Rural Carriers have shown by example that Universal Service funds distributed via existing High-Cost and Rate-of-Return mechanisms and used as intended by Congress are more than adequate to realize the National Broadband Plan's ubiquitous broadband goals. While such mechanisms are not perfect, and have substantial room for improvement, the SDTA Rural Carriers respectfully submit that to gut these programs would cause exponentially more harm than good, and represent a significant step backward in bringing broadband to rural America.

Any program the Commission implements must take into account the real-world differences between rural and non-rural carriers; a uniform cost model simply cannot suffice. Further, too much depends on the existing High-Cost and Rate-of-Return mechanisms to warrant a complete uprooting of these programs. Instead, the Commission should build on what works and redirect its energies to weeding out the imperfections in its existing regulatory regime.

The South Dakota RLECs, and indeed, rural carriers in general, are the backbone of rural telecommunications across the United States. The Commission must reconsider the proposals contained in its Notices of Inquiry and Proposed Rulemaking in light of the information provided herein.

Respectfully submitted,

**THE SOUTH DAKOTA
TELECOMMUNICATIONS ASSOCIATION**

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Members of the South Dakota Telecommunications Association

1. Alliance Communications Cooperative, Inc.
2. Beresford Municipal Telephone Company
3. Cheyenne River Sioux Tribal Telephone Authority
4. Faith Municipal Telephone
5. Fort Randall Telephone Company
6. Golden West Telecommunications Cooperative
7. Interstate Telecommunications. Cooperative
8. James Valley Telecommunications
9. Kennebec Telephone Company
10. Knology Community Telephone
11. Long Lines
12. Midstate Communications
13. Roberts County Telephone Cooperative. Assn.
14. RC Communications, Inc.
15. Santel Communications
16. Splitrock Properties, Inc.
17. Hills Telephone
18. Stockholm-Strandburg Telephone Company
19. Swiftel Communications (Brookings Municipal Telephone)
20. TrioTel Communications
21. Valley Telecomm. Cooperative Assn., Inc.
22. Venture Communications Cooperative
23. West River Cooperative Telephone Company
24. West River Telecommunications Cooperative
25. Western Telephone Company

Appendix B

Breakdown of Subscribed Broadband Service by Speed										
Download information transfer rate to the end user:										
Upload information transfer rate from the end user :		(6) Greater than 200 kbps and less than 768 kbps	(7) Greater than or equal to 768 kbps and less than 1.5 mbps	(8) Greater than or equal to 1.5 mbps and less than 3 mbps	(9) Greater than or equal to 3 mbps and less than 6 mbps	(10) Greater than or equal to 6 mbps and less than 10 mbps	(11) Greater than or equal to 10 mbps and less than 25 mbps	(12) Greater than or equal to 25 mbps and less than 100 mbps	(13) Greater than or equal to 100 mbps	Total
	Less than or equal to 200 kbps	16.4850%								16.4850%
	Greater than 200 kbps and less than 768 kbps	5.4911%	20.6989%	7.0067%	11.4512%	2.7258%	1.8172%			49.1909%
	Greater than or equal to 768 kbps and less than 1.5 mbps		1.0821%	1.6241%	24.2821%	0.0039%	5.2743%			32.2664%
	Greater than or equal to 1.5 mbps and less than 3 mbps	0.0020%	0.0059%	0.2641%	0.1380%		1.4486%		0.0158%	1.8744%
	Greater than or equal to 3 mbps and less than 6 mbps				0.0020%		0.1261%			0.1281%
	Greater than or equal to 6 mbps and less than 10 mbps						0.0020%			0.0020%
	Greater than or equal to 10 mbps and less than 25 mbps							0.0512%		0.0512%
	Greater than or equal to 25 mbps and less than 100 mbps						0.0020%			0.0020%
	Greater than or equal to 100 mbps									0.0000%
Total		21.9780%	21.7869%	8.8949%	35.8732%	2.7298%	8.6702%	0.0512%	0.0158%	100.0000%

Note: The breakout of speeds shown above are for the purpose of categorizing subscriptions and are not necessarily reflective of actual broadband service offerings or service capabilities of the SDTA member companies. The data is as of year end 2009 and is based on Form 477 information filed by 23 of 25 SDTA members.

APPENDIX C

The SDTA member companies provide broadband services within their service areas in South Dakota through a variety of different technologies. The methods used by these companies to deliver broadband services to customers can be separated into two primary categories, wireline technologies and wireless technologies. The information below is intended to provide a basic description of the various technologies that are currently being used.

Wireline technologies use a physical cable or wire to provide broadband services to the customer. Examples of wireline technologies include Digital Subscriber Line (DSL), Cable Modems, and Fiber-to-the-Premises (FTTP). Wireless technologies use radio frequency (RF) transmissions to deliver broadband services to the customer. Services such as cellular phones, Wi-Fi, and Broadband Wireless Access (BWA) all use wireless technologies. We will briefly describe each of the common broadband access technologies.

Digital Subscriber Line (DSL):

The term Digital Subscriber Line (DSL) is a generic term for a number of comparable technologies that are used to deliver broadband services over twisted-pair cables. The most common technologies that fall under the DSL technology category include Asymmetrical Digital Subscriber Line (ADSL) and Very-high-bit-rate Digital Subscriber Line (VDSL). The current generation of these technologies is ADSL2+ and VDSL2.

DSL uses the same cable infrastructure that is used to deliver voice services to millions of homes and businesses throughout the United States. DSL technologies are rate adaptive. In other words, the broadband data speeds that can be delivered to the end customer will vary based on the length and quality of the copper cable. Adtran, a DSL access network vendor, has

conducted downstream ADSL2+ rate and reach tests using 24 AWG copper with an increasing numbers of self disturbers in the same binder group. Figure 1 shows the Adtran downstream test results.

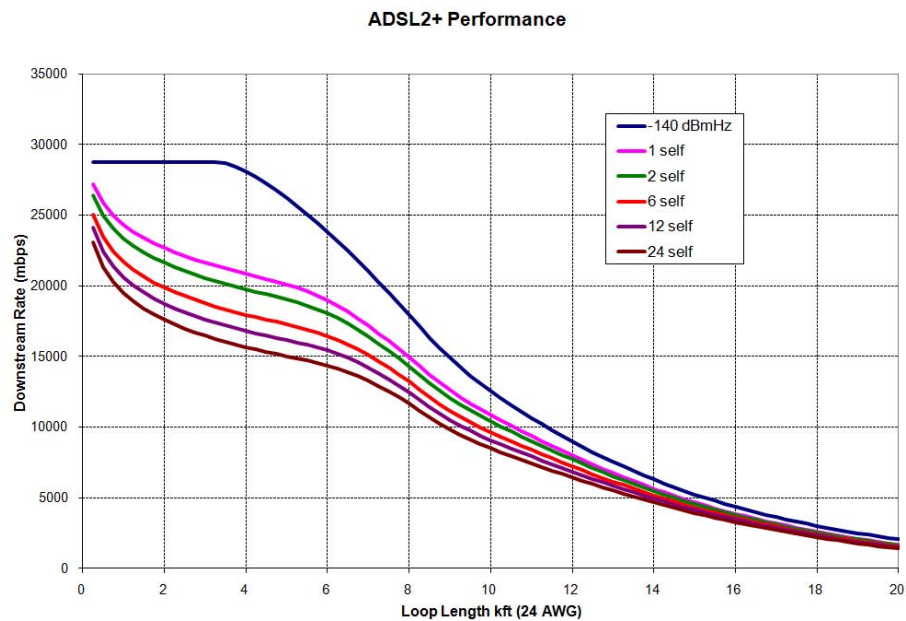


Figure 1 - ADSL2+ Downstream Rate/Reach Test Data

As evident in Figure 1 a downstream bandwidth of 4 Mbps can be achieved to a distance of at least 15,000 feet even with a large number of interferers in the same cable binder.

Limiting the cable distance to 12,000 to 15,000 feet can be a challenge for many SDTA member companies. South Dakota is a sparsely population state and SDTA members typically serve the most remote areas. Some service territories cover hundreds of square miles and require numerous field electronics to shorten the cable distances to 15,000 feet or less. These field electronics are often referred to as Digital Loop Carriers or DLCs. Most of these DLCs are served by fiber optic cable in order to provide sufficient backhaul capacity. Circuit cards that support DSL services are placed in the field electronics cabinets to serve the end user and provide better broadband data rates. Please refer to the diagram in Figure 2.

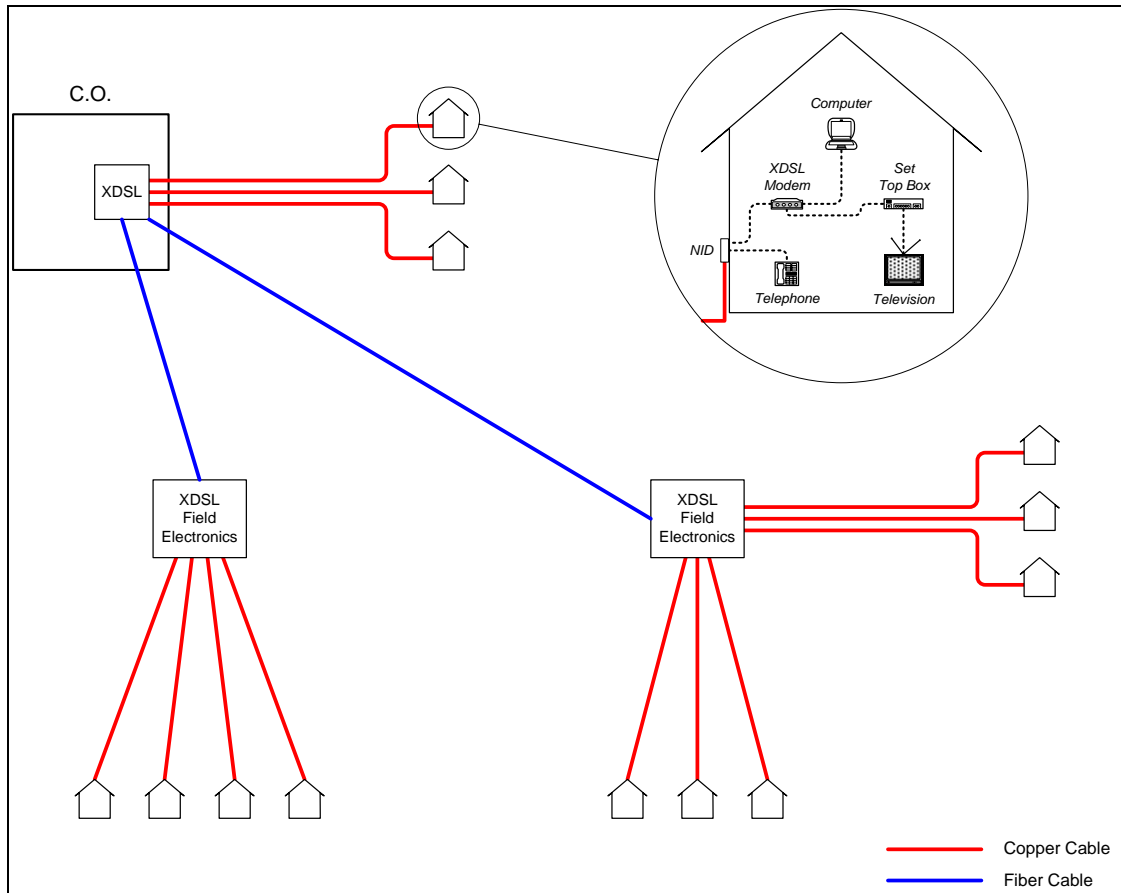


Figure 1 – Digital Subscriber Line Deployment with Field Electronics

The deployment of DSL technologies started in the late 1990's in South Dakota, and became widespread by the early 2000's. This technology has provided adequate broadband service to the homes and businesses in South Dakota over the past decade. However, DSL has broadband limitations in both the upstream and downstream directions. Typically, the limitation for ADSL technologies is 1 Mbps upstream, with some standards variants allowing for up to 3 Mbps upstream. As customer broadband demands continue to increase, the cable lengths will have to decrease. Decreasing the length of the twisted-pair copper cable to less than 12,000 to 15,000 feet is not economically feasible in these rural areas since it would result in only a small number of customers being served by each DLC.

Cable Modems:

Coaxial (Coax) cable systems have traditionally been utilized by cable television (CATV) providers for delivering broadcast video service to the customer. In recent years, the CATV industry has used their coax cable for providing broadband services using the Data Over Cable Service Interface Specification (DOCSIS). The DOCSIS specification defines how two-way broadband data services can be delivered over the traditional CATV infrastructure. This “standard” utilizes cable frequencies typically used for broadcast video channels to provide a shared pipe for broadband services to the subscribers. Each broadband subscriber has their own virtual connection on the shared pipe. The diagram in Figure 3 provides a graphical depiction of a typical Coax CATV network architecture.

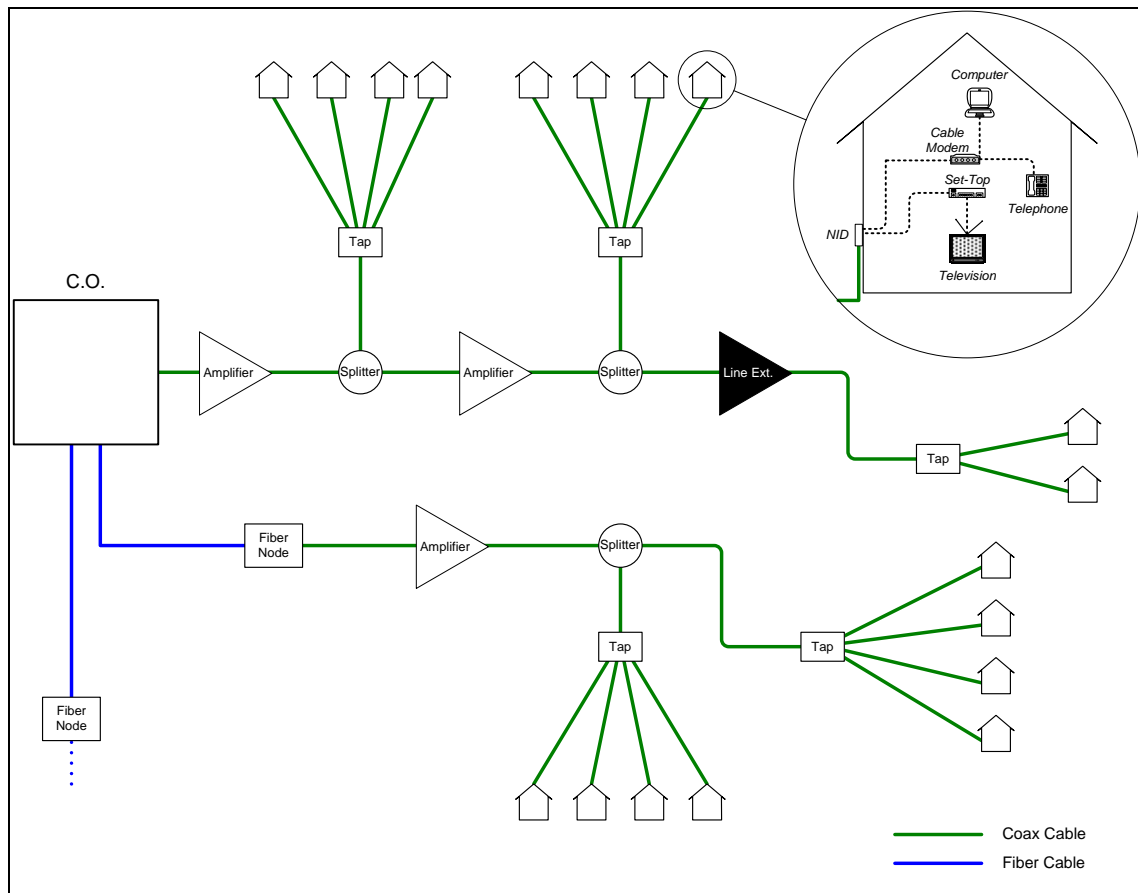


Figure 2 – Coaxial Cable Network Architecture

DOCSIS 3.0 can provide up to 160 Mbps downstream and 120 Mbps upstream. This broadband capacity is shared by all customers on the same channel(s) of the fiber node, which could be a few hundred customers. In practice, the broadband speed realized by the customer is much lower, especially during times of heavy network traffic. There are a number of ways in which a CATV provider can increase the broadband speed to their customers. These methodologies include the reduction in number of customers who share a channel, the placement of fiber nodes closer to the customer premises, and the implementation of channel bonding. In today's environment, the push to get fiber nodes closer to the customer and reduce the number of

customers on a fiber node to smaller quantities (typically less than 200) have been the primary mechanisms used to increase broadband speeds.

Fiber to the Premises (FTTP):

Fiber optic cable has been utilized in telecommunications networks for over 30 years, but until recently it had been relegated to fiber optic transport applications. Over the past decade, FTTP has come more widely deployed as a means to provide broadband services. FTTP technologies are able to deliver higher broadband speeds to end users than any copper based technologies such as DSL or Cable Modems. In addition, the service provided over FTTP networks is not “rate adaptive.” In other words, the broadband data rates do not decrease as the distance between the FTTP electronics and the customer increase. This feature allows for ubiquitous service to be offered to all subscribers of the system, regardless of the length of the fiber cable serving the customer.¹

Today, there are two common FTTP technologies: Gigabit-capable Passive Optical Network (GPON) and Active Ethernet. Development is currently underway for the next generations of FTTP technology including Wavelength Division Multiplexing Passive Optical Network (WDM-PON).

GPON is standardized by the International Telecommunications Union (ITU), and provides 2.4 Gbps downstream and 1.2 Gbps upstream, which is shared by up to 64 customer premises. Most GPON networks today are designed around 16-way or 32-way splitters, which mean 16 or 32 subscriber locations share the 2.4 Gbps downstream and 1.2 Gbps upstream. Please see Figure 4 for a diagram depicting a typical GPON deployment.

¹ As long as the cable does not exceed the maximum distance, which is normally 12.4 miles.

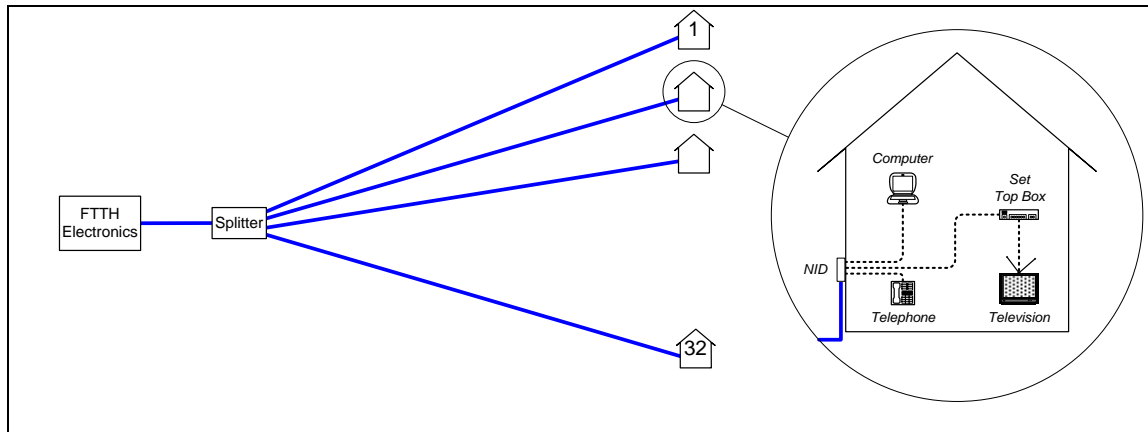


Figure 3 – Typical GPON Network Architecture

Assuming a 32-way split, if every subscriber were to request broadband services, the average bandwidth per subscriber would be approximately 75 Mbps downstream (2400 Mbps / 32 subscribers = 75 Mbps/subscriber) and 37.5 Mbps upstream. Unlike DSL or cable modems, FTTH has enough BB capability to be able to keep the pace with the rapidly growing customer broadband demands.

Active Ethernet networks utilize dedicated fiber from the CO electronics to the customer premises. This architecture requires one fiber port on the electronics for each premises served. Today, the Active Ethernet electronics provide symmetrical data rates. Most vendors have the ability to provide symmetrical data rates of 1 Gbps (1,000 Mbps) upstream and 1 Gbps downstream. This is effectively 13 times the downstream bandwidth capability of GPON networks that utilize 32-way splitters. Figure 5 provides a graphical representation of a typical Active Ethernet system architecture.

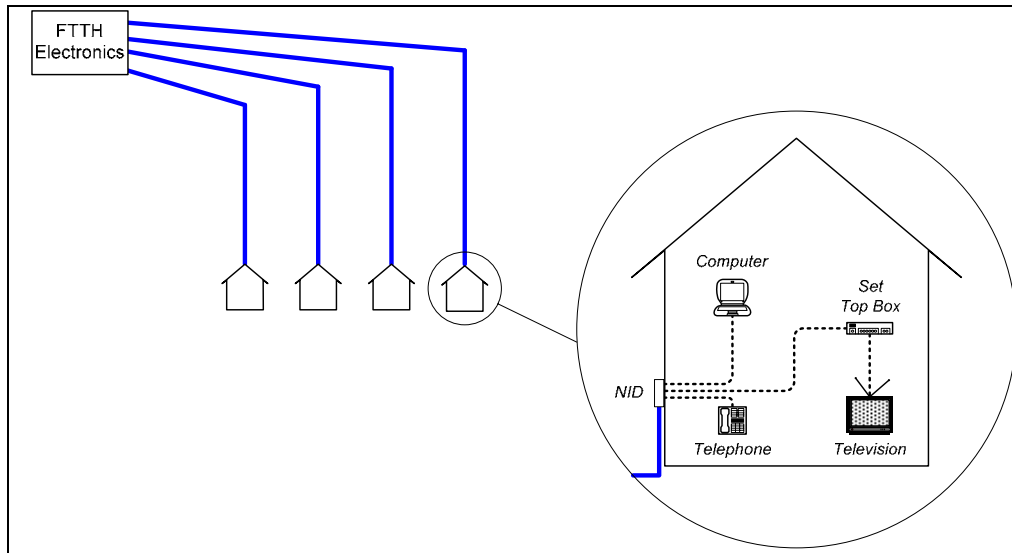


Figure 4 – Typical Active Ethernet Network Architecture

To date, GPON networks are more widely deployed in the United States, as well as within the SDTA member companies, than Active Ethernet FTTP systems. Active Ethernet deployments have recently been gaining market share.

Broadband Wireless Access (BWA):

While the DSL, Cable Modem, and FTTP technologies previously described are all Wireline Technologies, there are some SDTA members who have also deployed Wireless Technologies such as BWA to provide lower speed broadband. For our purposes, BWA is defined as a wireless means to provide broadband service to customers who are in a fixed location or who are nomadic (*e.g.* connect via a laptop card).

BWA service may utilize unlicensed radio frequency spectrum such as 900 MHz, 2.4 GHz, 5.3 GHz, or 5.8 GHz. In addition, a BWA deployment may operate on licensed spectrum such as the 700 MHz band, the 2.5 GHz Broadband Radio Service (BRS) spectrum, or the 3.65 GHz band. Using a licensed spectrum is preferred because they are less prone to interference.

A typical BWA deployment consists of a number of base stations that provide broadband service to customer using wireless technologies and use a fiber optic backhaul system. The customer premises may have either an outdoor unit that consists of an antenna and radio unit or an indoor unit. Typically, indoor units are only deployed at customer locations that are relatively close to the base station and have adequate signal strength. A diagram depicting a typical BWA deployment is shown in Figure 6.

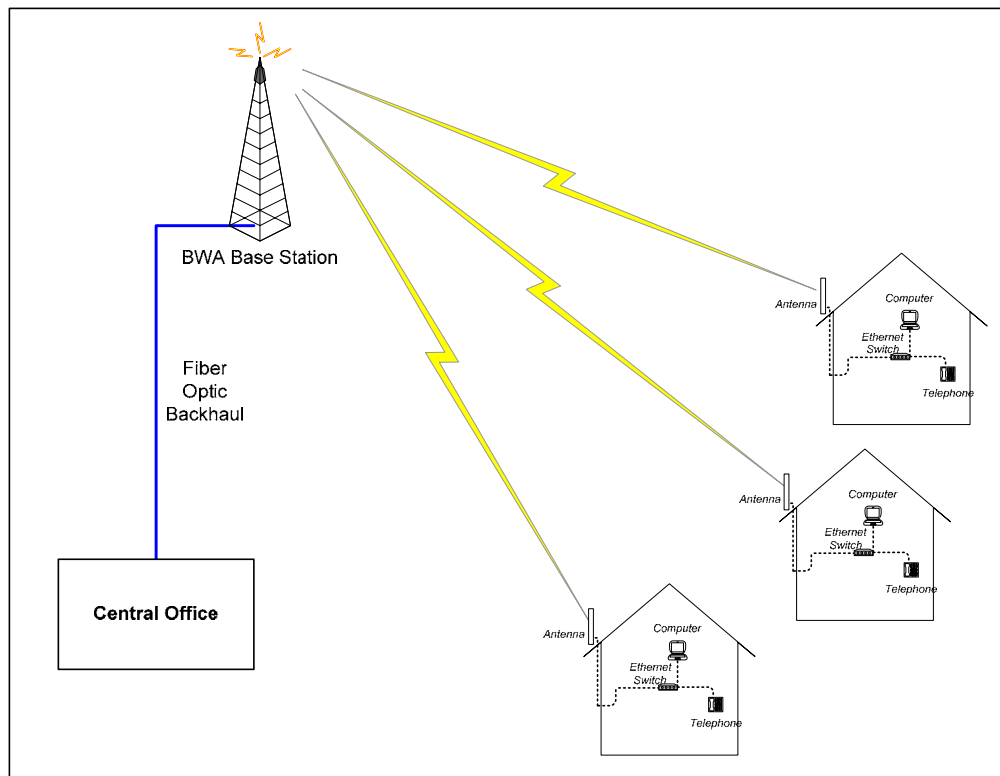


Figure 5 – Typical BWA System Architecture

The BWA systems are similar to DSL in the fact that the data rates available to the end user reduce as the distance from the base station increases. However, unlike DSL which has a dedicated cable pair to each end user location, a BWA system shares its broadband capacity amongst all subscribers served from a base station (or sector of a base station).

The spectral efficiency of the system, as well as the amount of spectrum used, determines the size of the pool of bandwidth. Some of the most advanced BWA systems on the market today have a peak spectral efficiency of 2.5 bps per Hertz, but the average spectral efficiency is typically less than 1.5 bps per Hertz. Therefore, if a service provider were to utilize one BRS channel (6 MHz) upstream and one BRS channel downstream for their BWA deployment, the average downstream data rate for all subscribers served off that channel is approximately 9 Mbps (6 MHz * 1.5 bps/Hertz = 9 Mbps). BWA systems often serve hundreds of subscribers off a single base station.

There are three primary methods to increasing the broadband speed to customers. One is to increase the number of towers and therefore reduce the number of customers per tower. This is typically very expensive and often not feasible. Secondly, the service provider can use more spectrum for the BWA system. Spectrum may be difficult to obtain and is generally very expensive. Finally, a BWA service provider can wait for new technologies to emerge that will improve spectral efficiency. However, these technologies with improved spectral efficiencies typically reduce the effective coverage that can be achieved from a base station, requiring more towers. For these very reasons, BWA technologies are typically viewed as short term solutions to serve remote areas that have few other alternatives for broadband services.

